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COUNTRY USSR

REPORT

SUBJECT Soviet Data, with Photograph, on UNI-Polar Impulse Generators, Numbers 2 and 3

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UNI - POLAR IMPULSE GENERATOR

MODEL MTM - 2M

UNI - POLAR IMPULSE GENERATOR MODEL МГН - 2М

Applications and Features.

The uni-polar impulse generator model МГН - 2М is designed for supplying electric-impulse machines with impulse current. This generator can be also used for cutting, plating, welding and other operations requiring intense current.

The proper choice of optimum pulse parameters reduces the wear of metal electrodes of aluminium, aluminium alloys and copper up to 8-20% / 5-6 times less as compared to electric spark machines / and increases production rate while working at continuous duty up to 1500mm³/min when steels are machined and up to 2200mm³/min when nimonics are machined. The generator МГН - 2М is especially successful when electrodes are made of special graphitic material 55Г.

The wear of electrodes made of the material 55Г is reduced to 0,2-1%, that is 40-60 times less than that which available during electric-spark machining.

The generator МГН - 2М provides stepless adjustment of the power of electric-impulse machines.

The change of generator power is effected by adjusting low current in excitation circuits.

The generator do not require special maintenance. The life and reliability of the generator МГН - 2М are equivalent to those common direct-current electrical equipment.

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Specifications.

Frequency 400imp/sec.
Rated voltage 25 V.
Average current :
 rated duty 110 A.
 one-hourly load 125 A.
Excitation voltage 220 V.
Minimum over current resistance 0,06 ohms.
Consumption of power at rated capacity 10 kw.
Dimensions / length x width x height/ 660 x 430 x 450 mm.
Weight 190 kg.

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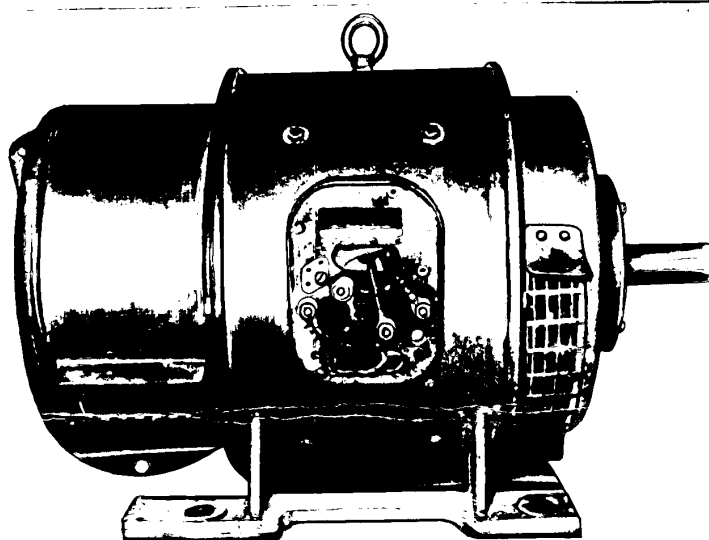


Fig. I. Uni-polar impulse generator МГН - 2М.

UNI - POLAR IMPULSE GENERATOR

MODEL MPH - 3M

UNI - POLAR IMPULSE GENERATOR MODEL МГН - 3М.

Applications and Features.

The uni-polar impulse generator model МГН - 3М is designed for supplying electric-impulse machines with impulse current.

This generator can be also used for cutting, plating, welding and other operations requiring intense current. The proper choice of optimum pulse parameters reduces the wear of metal electrodes made of aluminium, aluminium alloys and copper up to 8-20% / 5-6 times less as compared to electric spark machines/ and increases production rate while working at continuous duty up to 5000 mm³/min when steels are machined and to 7000 mm³/min when nimonic~~g~~ are machined. The generator МГН - 3М is especially successful when electrodes made of special graphitic material $\Theta\Theta\Gamma$ are used at current up to 150 A. The wear of electrodes made of the material $\Theta\Theta\Gamma$ is reduced to 0,2-1%, that is 40-60 times less than that which is available during electric-spark machining.

The generator МГН-3М provides stepless adjustment of the power of electric-impulse machines. The change of the generator power is effected by adjusting low current in excitation circuits. The generator needs no specially trained operators.

The life and reliability of the generator МГН - 3М are equivalent to those of common direct-current electrical equipment.

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Great power potential of the generator MTM - 3M used for supplying the machine model 4723 makes that machine more reliable in operation.

Specification.

Frequency. 400imp/sec.
Rated voltage. 25 V.
Average current
 rated capacity 340 A.
 one-hourly load 400 A.
Excitation voltage. 220 V.
Minimum over current resistance 0,02 ohms.
Consumption of power at rated capacity 28kw.
Dimensions / length x width x height / 960mm x 700mm x 600mm
Weight.. . . . 550kg.

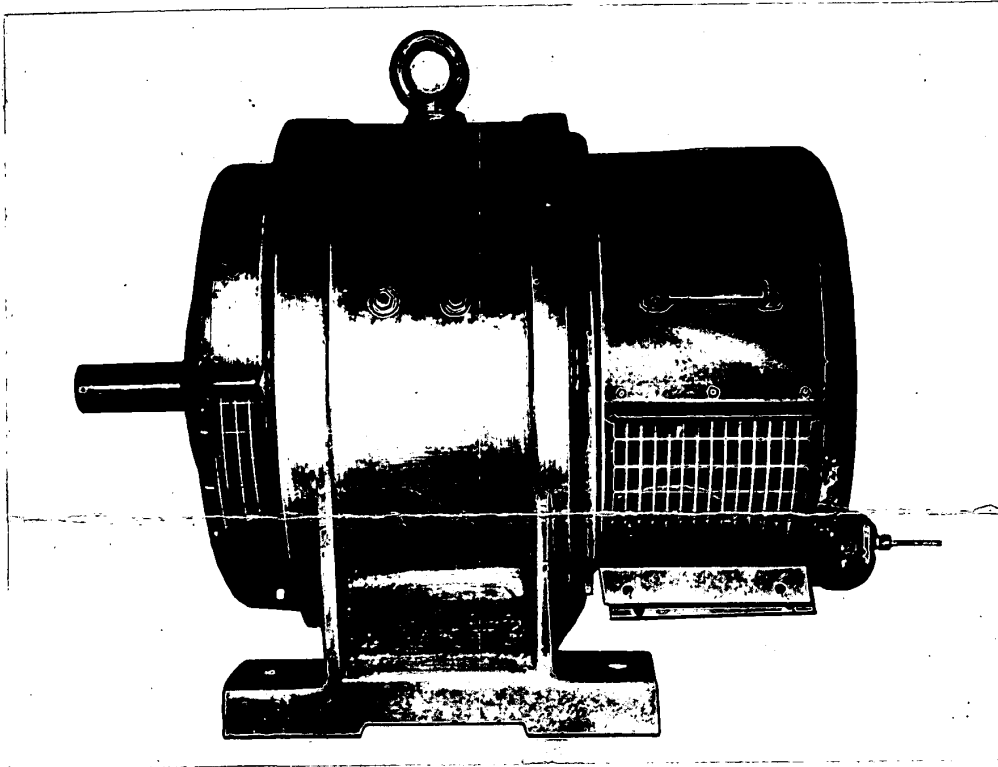


Fig. I. Uni-polar impulse generator MFM - 3M.